DETERMINANTS OF BUYING BEHAVIOUR OF CONSUMERS FOR AGRI-FOOD PRODUCTS IN FCT ABUJA

INYOMMOM Aperaga Enoch[1], PAWA Sewuese Scholastica[2]

[1,2]*Department Agribusiness, Joseph Sarwuan Tarka University Makurdi (JOSTUM), Benue State Nigeria.*

Corresponding Author:

ABSTRACT

This study assessed the determinants of consumer buying behaviour for agri-food products in the Federal Capital Territory (FCT), Abuja, using a quantitative research design. The population comprised households across six area councils of the FCT, with a sample of 101 households selected through random sampling. A structured questionnaire was used for data collection, and both content and construct validity were established through expert review and factor analysis (KMO = 0.945, Bartlett's χ^2 = 9.610, p < 0.001). Reliability was confirmed with Cronbach's Alpha coefficients ranging from 0.764 to 0.896, and an overall alpha of 0.851, indicating strong internal consistency. Binary logistic regression was employed for data analysis. The model achieved a good fit, with Nagelkerke R^2 = 0.753, explaining 75.3% of the variance in consumer buying behaviour. Results revealed that cultural and social influence (B = –0.087, p = 0.691) and economic factors (B = 0.059, p = 0.801) had insignificant effects. Conversely, technological and information access showed a strong positive influence (B = 1.652, p = 0.000; Exp(B) = 5.216), while marketplace preference exhibited a significant negative effect (B = –1.733, p = 0.002; Exp(B) = 0.177). The study concludes that consumer decisions are shaped more by technology and marketplace conditions than by cultural or economic factors. It recommends investing in digital infrastructure and e-commerce systems, strengthening information dissemination, and modernizing traditional markets to improve consumer satisfaction and patronage.

Keywords: *Buying behaviour, agri-food products, consumer choice, technology, marketplace preference*

INTRODUCTION

Every human being, whether they are an individual or a group, consumes something every day for a significant amount of their lives. Patricia, R, Maritza, Camilo and Franklin (2024) consumer buying behavior is the purchasing habits of ultimate consumers, which are people and families who purchase products and services for their own use. consumer behavior refers to the steps a consumer takes to determine what to buy, such as identifying a problem, gathering information, weighing their options, making a decision, and evaluating their purchase once it has been made (Patricia, R, Maritza, Camilo and Franklin, 2024). The value of the Nigerian Naira in relation to US dollars has decreased by around 20% since the end of 2015. In addition, oil prices have dropped by more than 70% globally. This implies that Nigeria, an oil-rich country that depends "95% on oil and gas for its export earnings, 35% of government revenue," needs to consider the'made in Nigeria' movement as one of its strategies to avoid the impending economic slump brought on by the drop in oil prices.

Nigerians have such a negative attitude toward products created in their country that they even consider used foreign goods to be superior to high-quality products made in Nigeria. The majority of local businesses would close if this tendency keeps up, which will hinder economic growth since employment will increase. As a result, consumers' perceptions of items created in Nigeria need to be carefully considered. Since some of these foreign goods are easily smuggled into the nation, it is reasonable to assume that the advantages these imports have over domestically produced goods are the reason for the rise in importation of commodities. As the years go by, there will inevitably be a decline in this tendency if they are not purchased in greater quantities than locally manufactured goods. This issue merits consideration and a resolution (Daya and Swati, 2022).

OBJECTIVE OF THE STUDY

The main objective of this study is to assess the determinants of buying behaviour of consumers for agri-food products in FCT Abuja. The specific objectives are to:

i. Examine the effect of cultural and social influence on buying behaviour of consumers for agri-food products in FCT Abuja
ii. Ascertain the effect of economic factors on social influence on buying behaviour of consumers for agri-food products in FCT Abuja
iii. Assess the effect of technological and information access on social influence on buying behaviour of consumers for agri-food products in FCT Abuja
iv. Determine the effect marketplace preference on social influence on buying behaviour of consumers for agri-food products in FCT Abuja

LITERATURE REVIEW

This literature review explores the key determinants of consumer behavior in the context of agri-food products, with a focus on identifying the factors that influence purchasing decisions and the types of marketplaces preferred by consumers.

CONCEPTUAL FRAME WORK
CONSUMER BUYING BEHAVIOR

Consumer buying behavior encompasses the decision-making processes and actions that individuals or groups undertake when selecting, purchasing, using, or disposing of products and services (Faijul, Mohammad, Ismat and Andrew, 2023). This behavior is shaped by a combination of psychological, personal, social, and cultural factors. Psychological influences such as perception, motivation, and attitudes play a critical role in shaping a consumer's decisions, often driven by how they view a brand or product based on advertising and past experiences. Personal factors, including age, gender, occupation, lifestyle, and economic status, also significantly impact purchasing choices, as different demographics prioritize different product attributes. Social factors involve the influence of family, friends, social media, and broader societal norms, which can sway a consumer's decisions, particularly through recommendations or trends.

Cultural factors, such as a person's cultural background, subculture, and social class, further dictate preferences, purchasing habits, and brand loyalty ((Faijul, Mohammad, Ismat and Andrew, 2023). Overall, consumer buying behavior is complex and varies across different products, markets, and individual circumstances, making it crucial for businesses to understand these behaviors to effectively tailor their marketing strategies to meet the needs and preferences of their target audiences. Understanding consumer buying behavior is crucial for developing effective marketing strategies in the agri-food sector. The choices consumers make when purchasing food products are influenced by various factors, including cultural, social, economic, and psychological elements (Faijul, Mohammad, Ismat and Andrew, 2023).

FACTORS INFLUENCING CONSUMER CHOICES
CULTURAL AND SOCIAL INFLUENCES

Cultural and social factors play a significant role in shaping consumer preferences and buying behaviors Culture influences food choices through established dietary practices, traditional cuisines, and societal norms (Faijul, Mohammad, Ismat and Andrew, 2023). For instance, certain communities in Nigeria may have dietary restrictions based on religious or cultural beliefs, which in turn affect their purchasing decisions. Social factors, including family, friends, and social networks, also impact food choices. Peer influence, family traditions, and social status can dictate what, where, and how consumers purchase their food products.

ECONOMIC FACTORS

Economic considerations such as income level, price sensitivity, and the perceived value of products are critical in determining consumer behavior. In Abuja, where there is a diverse economic demographic, consumers with higher disposable incomes may prioritize organic and premium food products, while those with lower incomes may focus on affordability and bulk purchasing. Price elasticity also affects buying behavior, with consumers responding differently to price changes based on their financial capacity and the perceived necessity of the product (Faijul, Mohammad, Ismat and Andrew, 2023).

PSYCHOLOGICAL FACTORS

Psychological influences, including perception, motivation, beliefs, and attitudes, are essential in understanding consumer behavior. Perception relates to how consumers interpret information about food products, such as labeling, packaging, and branding. Motivation drives the need to purchase certain food items, which can be influenced by health concerns, convenience, or taste preferences. Consumer beliefs and attitudes, shaped by past experiences and marketing efforts, also affect their buying choices. For example, consumers who believe in the health benefits of organic food are more likely to purchase such products, even at a premium price (Faijul, Mohammad, Ismat and Andrew, 2023).

TECHNOLOGICAL AND INFORMATION ACCESS

With the increasing availability of information and technological advancements, consumers in Abuja are becoming more informed about their food choices. The rise of e-commerce and mobile platforms has provided consumers with easy access to a wide range of food products, along with detailed product information, reviews, and price comparisons. This access to information empowers consumers to make more informed decisions, driving a shift towards more conscious and health-oriented buying behaviors (Faijul, Mohammad, Ismat and Andrew, 2023).

MARKETPLACE PREFERENCES
TRADITIONAL MARKETS VS. MODERN RETAIL

In Abuja, consumers exhibit varied preferences between traditional open-air markets and modern retail outlets such as supermarkets and grocery stores. Traditional markets offer the appeal of fresh produce, bargaining opportunities, and a wide variety of local products. They are often preferred by consumers who value freshness and the ability to select produce personally. On the other hand, modern retail outlets provide convenience, a hygienic shopping environment, and a broad range of packaged and branded products. These are favored by consumers who prioritize convenience, product variety, and the shopping experience (Daya and Swati, 2022).

ONLINE SHOPPING AND E-COMMERCE

The adoption of online shopping for food products is gradually increasing in Abuja. E-commerce platforms offer the convenience of home delivery, time savings, and access to a broader range of products that may not be available in local markets. The trend towards online shopping is particularly strong among younger, tech-savvy consumers and those with busy lifestyles. However, concerns about product quality, delivery reliability, and the sensory experience of selecting fresh produce still pose challenges to the widespread adoption of online food shopping (Daya and Swati, 2022).

SPECIALTY STORES AND FARMERS' MARKETS

Specialty stores and farmers' markets cater to niche markets, offering organic, gourmet, and locally-produced food items. These marketplaces attract consumers who are willing to pay a premium for quality, sustainability, and traceability. The growing interest in health and wellness, along with a preference for supporting local farmers, has fueled the popularity of these outlets. Farmers' markets, in particular, provide a direct link between producers and consumers, fostering trust and a sense of community (Daya and Swati, 2022). The literature on consumer behavior for agri-food products reveals that buying decisions are influenced by a complex interplay of cultural, social, economic, psychological, and technological factors. Understanding these determinants is crucial for developing effective marketing strategies that resonate with the target audience in Abuja. As the city continues to modernize and its population becomes more diverse, consumer preferences are likely to evolve, highlighting the need for ongoing research to adapt to changing market dynamics (Daya and Swati, 2022). This review underscores the importance of tailoring marketing efforts to meet the specific needs and preferences of different consumer segments, ensuring the success of agri-food businesses in the region.

THEORETICAL REVIEW
THE THEORY OF PLANNED BEHAVIOR (TPB)

The Theory of Planned Behavior, developed by Icek Ajzen in 1985, provides a useful framework for understanding consumer buying behavior. According to TPB, an individual's intention to engage in a particular behavior, such as purchasing a specific food product, is influenced by their attitude towards the behavior, subjective norms, and perceived behavioral control (Daya and Swati, 2022). In the context of agri-food products, TPB suggests that consumers' intentions to buy certain products are shaped by their attitudes (e.g., health consciousness), the influence of others (e.g., family preferences), and their perceived control over the buying process (e.g., availability of the product) (Daya and Swati, 2022).

EMPIRICAL REVIEW
FACTORS INFLUENCING CONSUMERS' CHOICES REGARDING FOOD AND GROCERY ITEMS

Chamhuri and Batt (2009) examined the Changes happening within the retail food sector in both the developed and developing regions. Modern retail formats are replacing the role of traditional markets, which, in turn, provide more choice for consumers on where and when to shop. The objective of this review is to identify those factors that most influence the consumer's choice of retail food store. The review compares differences observed in patronage behaviour between developed and developing regions. The findings show that the factors that are considered most influential in the consumer's choice of retail food store include: proximity; competitive price; food quality and food safety; and the demographic characteristics of the consumers themselves.

Daya and Swati (2022) examined retailing as one of the main contributors to the Gross Domestic Product (GDP) and also one of the biggest employers. The fast-growing trend of online shopping retail IOT- points out a rapid growth ahead for online grocery shopping. With more of Internet connectivity (rise of smartphone users), the growing popularity of mobile shopping and dealing in daily consumption commodities, grocery e-stores hold a potential in India. In this regard, this paper intends to study the factors influencing the intentions of consumers towards online food and grocery shopping in Navsari city. For the fulfilment of the objectives of the study 200 respondents were selected as sample size and data were collected through structured questionnaire. The major findings of the study were that consumers mostly use mobile application for online purchasing and debit/credit card mode was most preferred payment option for online shopping and most of them were ordering weekly. Regarding expectation of consumers the major factors were total cost of calculation, high quality of product, pricing/shipping information clarity etc. And the major constraints faced by the consumers while online shopping of food and grocery items were hidden charges on products/delivery were the major constraint, difficulty in returning products and lack of security in the process of online grocery purchase.

Anis, Nolila, Amin and Ismail (2017) viewed that Online platform nowadays has started to replace the traditional market and require consumers to change their buying habits and patterns extensively. Thus, the trend of having grocery delivered to the doorstep has been introduced to Malaysian consumers especially who lives in urban area. Previous studies have shown that online groceries are not consistently purchased by the consumers due to several reasons such as inconsistent quality and lack of sensory characteristics. However, there are still number of consumers who continuously shops groceries through online platform. Thus, the aim of this study is to determine factors influencing consumer's intention to shop groceries online. The primary data were collected using structured questionnaire in the form of online survey with 521 respondents in Klang Valley, Malaysia. Data collected were analyzed using descriptive analysis and factor analysis. The findings of the study showed that majority of the online grocery shoppers are female with the age ranged between 26-35 years old. Besides that, results from factor analysis revealed that perceived usefulness, satisfaction, perceived risk, perceived information accessibility and perceived ease of use are among factors that influenced consumer's intention towards online grocery shopping.

Tabassum and Jabir (2020) analyze the factors affecting the consumer's willingness to pay for health and wellness food products in India, based on the primary consumer survey of 218 respondents. A structured questionnaire survey was administered using a stratified random sampling technique. The Poisson Count Regression Model (PCRM) has been used to analyse the factors affecting the willingness to pay for health and wellness food products. The analysis reveals that 44 percent of the consumers are willing to pay an average of 9 percent additional price for buying their desired health and wellness food products. Results of regression analysis show that important demographic variables that are more likely to affect the consumers' willingness to pay for healthy food products are income and education. Health consciousness is the key psychological factor of the buyers influencing their willingness to pay for purchasing followed by product quality, taste, packaging, price, and consumers look for convenience in shopping and are less influenced by market offerings and sales assistance in the store while buying health and wellness food products.

Patricia, Maritza, Camilo and Franklin (2024) describe the characteristics of the factors that influence consumer behavior in food markets and supermarkets. The study was based on the theories of consumer behavior through the approaches

outlined by Maslow and Mang'unyi and Govender. The research shows the results of the study conducted on the consumers of Peruvian markets and supermarkets located in Lima, the capital of Peru. The factors that influence consumer behavior when shopping are described, such as the proximity of the establishment, friendliness, quality, family atmosphere, prices, and perception. The methodology was based on a mixed, cross-sectional, and non-experimental approach, applying surveys to 400 consumers of food markets and supermarkets. The information obtained was corroborated by interviews with market traders, supermarket stockers, and marketing and economic experts. The results of the surveys conducted indicate that there are personal, cultural, and psychological factors that influence the decision-making of consumers of food markets and supermarkets. The results showed that personal factors have the greatest impact on consumer decisions, as confirmed by the majority of the population surveyed.

TYPES OF MARKETPLACES PREFERRED BY CONSUMERS FOR PURCHASING FOOD PRODUCTS

Shafiwu, Donkoh and Alhassan (2018) assessed consumers' preferred purchasing outlet of safer vegetables in Ouagadougou, Burkina Faso using Multinomial Logit. A semi-structured questionnaire was administered on 350 consumers of vegetables (cabbage, lettuce and tomatoes) selected through a multistage random sampling procedure from 10 districts of the capital city, Ouagadougou. Descriptive statistics was used in describing consumers' socio-economic characteristics. Multinomial logit was used to estimate how consumers' socio-economic characteristics affect their preference for purchasing point/outlets for safer vegetables. The Garrett's ranking technique was then used to rank the constraints to accessing safe vegetables. The result revealed that 52.57% of the consumers preferred to buy safer vegetables from the roadside market, 31.43% preferred to buy from the supermarket, while the remaining 16.00% preferred to buy from the farm gate. From the estimation results, the supermarket was a preferred choice for the following categories of consumers: the married; the formally educated; the salaried workers; the relatively rich; and those who purchased vegetables much more frequently.

Faijul, Mohammad, Ismat and Andrew (2023) assessed Bangladeshi consumer-preferred traits while purchasing vegetables, considering four attributes -freshness, price, quality, and safety together with the socio-demographic variables of consumers. In addition, this study also aims to find the factors influencing consumers' price consciousness while purchasing vegetables. A total of 220 consumers were surveyed in person across Bangladesh's two main cities- Dhaka and Mymensingh. We find that age, education, income, and food expenditure are the discriminating factors influencing consumer preferences for vegetable attributes. Additionally, we show that income, food spending, shopping patterns, and the purchase site impact consumers' price consciousness while buying vegetables. The results indicate that higher-income and well-educated Bangladeshi buyers are ready to shell out extra for fresh vegetables compared to their lower-income and less-educated counterparts who are more price-conscious.

Juliano, Ariana, Bridget, Petrus and Luiz (2021) examined exploring consumers' preferred purchase location for fresh fruit in the view that Before consumers choose what and how much fruit to buy, they first decide where to buy it. To address the choices of stores for fresh fruits, this study investigated the influence of market attributes and customers' attitudes toward their purchasing decisions. Data from a web-based survey of 1658 U.S. consumers were used to conduct multinomial logit regression to investigate the factors guiding their choices regarding four types of stores: chain, independent, club/warehouse, and direct-to-consumer. We found attitudinal scales and market attributes have different effects on the choice of marketplace for fresh fruits. Driven by price and convenience, most consumers prefer chain stores when buying fresh fruits, whereas those same factors deter them from choosing independent and ethnic stores for fresh fruits. The supply of local fruits, friendly atmosphere, and access to desirable fresh fruits positively influenced consumers to purchase fruits at local markets.

Xujin, Jingyi and Rangtao (2022) examined Consumers' Channel Preference for Fresh Foods and Its Determinants during COVID-19: Evidence from China. The public has been experiencing unprecedented challenges during the COVID-19 pandemic for the past two years. Government measures, such as improvements in offline markets and the encouragement of contactless e-commerce use, have been taken to abate the spread of infection. This study explored whether public channel preferences for fresh foods have changed and aimed to identify potential determinants. Data from 10,708 consumers were obtained by issuing questionnaires, and the binary logic measurement model was used for the empirical analysis to study the core factors that determine consumers' choice of online and offline purchase channels for fresh food. The results show that, from the perspective of consumers' personal behavior, consumers who do not pay attention to online evaluations and consumers who do not buy products based on their purchase experience have increased the frequency of online fresh food purchases during the epidemic. Food safety also significantly affects consumers' choices of purchase channels. Consumers who believe that online fresh foods are safer prefer to purchase fresh food online.

Boban, Dragana, Branislav, Tamara and Michal (2020) examined the benefits of the organic production system, it is recognized as one of the main drivers of future economic development. However, the imbalance between demand and

supply at the local market level represents one of the serious obstacles that prevents its future growth. Therefore, this article examines the key factors related to the main elements of the offer that have the strongest impact on consumer preferences and acceptance of organic food products. In that sense, organic product, price, distribution channel, and promotion are considered the main elements of the offer and are analyzed in this paper from the consumer preferences perspective. Further, this article provides insight into some of the sensory properties of the offer that are important to consumers. Finally, it gives recommendations for optimization of the offer on the organic food market based on the analysis of the influence of each of those elements (product, price, distribution, and promotion) on consumer acceptance of organic products and making purchasing decisions. The data were collected using a questionnaire, and analyzed using the structural equation model (SEM). The results revealed that price and promotion have the strongest impact on consumer acceptance and buying decisions. Further analysis revealed that attitudes towards organic food products, price/quality ratio, distribution barriers, and modern media as a promotion instrument are the factors that have the most significant impact on consumer perception and attitudes towards the available market offer.

METHODOLOGY
STUDY AREA

The Federal Capital Territory (FCT) in central Nigeria houses Abuja, the nation's capital. Positioned in the north-central region of Nigeria, the FCT lies just north of the confluence of the Niger River and Benue River. consumer opinions on various market features, such having groceries and food in one location, offering extra services, drawing kids, having basic facilities available, etc., on a Likert-type scale (1 ¼ not at all important and 5 ¼ very important). Respondents' age, gender, family size, educational attainment, and household income were among the sociodemographic details gathered in the questionnaire's second section. Covering approximately 7,315 square kilometers, it has a population of 1,406,239 people according to the 2006 census. Administratively, FCT is divided into six area councils namely, Abuja municipal area council (AMAC) Bwari area council, Kwali area council, Kuje area council, Abaji area council and Gwagwalada area council with Gbagy (Gwari) as main indigenous people and the predominant tribe in the FCT. The FCT is characterized by two season, the rainy season and dry season. The rainy season in the FCT last between April to October of every year, while the dry season last between November to March of next year. The agricultural production system in the study area is mixed cropping. Crop production is the main agricultural activity for the livelihood of the small holder in the study area. Yam cassava, rice, melon, millet, maize are some of the notable agricultural production products of the FCT.

DATA COLLECTION

Consumer interviews conducted in a developed residential area near Apna Bazaar provided the data for this study. A total of 101 homes were conducted in-person interviews to gain insight into their grocery and food shopping habits. Product categories such fruits, vegetables, wheat flour, legumes, edible oil, processed and uncooked rice, and spices were all included in the study. The residential area near Apna Bazaar was chosen due to the perceived progressive nature of its residents, who prioritize health, hygiene, and quality, and have sufficient purchasing power for organized retail shopping. The households were selected randomly, with a focus on interviewing those directly responsible for household shopping. Interview times were scheduled for the convenience of the respondents. Additionally, in approximately 25% of cases, survey questionnaires were distributed in person and collected the following day after being filled out by respondents.

There were two sections to the survey questionnaire. The first section of the questionnaire asked questions about the following: how often consumers buy, how much they spend each month, where they buy their goods, how far they go to buy them, and whether they prefer to buy things wrapped or loose. When it comes to fruits, vegetables, and grocery products, customers individually value a multitude of factors, including convenience, quality, variety and choice, price, seasonality, packaging, and cleanliness. A four point Likert scale (4 = Strongly agree, 3 = Agree, 2 = Disagree, 1 = Strongly disagree) is used to examine these points of view. Customers' individual opinions about various aspects of the market, such as having groceries and meals available in one location, offering extra services, drawing kids in, having basic amenities available, etc., on a Likert-type scale. The respondents' sociodemographic details, including age, gender, family size, level of education, and household income, were included in the second section of the questionnaire.

VALIDITY OF INSTRUMENT

The validity test was carried out to check the ability of the research instrument to measure the variable it is intended to measure. Both content and construct validity were employed. While content validity was tested through the expert contributions from my supervisor and other experts in the field, construct validity was tested with the use of factor analytical tool that considered Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity. To establish the validity of the instrument, a pre-test study was carried out with thirty percent of the total sample of the study and the result of the pre-test study was subjected to exploratory factor analysis to determine if the construct is in line with extant literature on the subject matter. Thirty percent of the study sample i.e. 1/3 of 101 is thirty four (34) respondents from the study area was used for the pre-test study.

Table 1: Kaiser-Meyer-Olkin and Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.945
Bartlett's Test of Sphericity	Approx. Chi-Square	9.610
	df	10
	Sig.	.000

Source: SPSS Result, Version 26.0

Legend: BBC = Buying behaviour of consumers, CSI = Cultural and social influence, TIA = Technological and information access, ECF = Economic factors, MPP = Marketplace preference

The results in Table 1 affirm the validity of the instrument used for measuring the constructs. The Kaiser-Meyer-Olkin (KMO) value of 0.945 far exceeds the recommended threshold of 0.6, indicating excellent sampling adequacy and strong intercorrelations among the variables (BBC, CSI, TIA, ECF, and MPP) for factor analysis. Similarly, Bartlett's Test of Sphericity is significant ($\chi^2 = 9.610$, df = 10, $p < 0.001$), rejecting the null hypothesis of an identity matrix and confirming that the correlation matrix is suitable for structure detection. Together, these results demonstrate that the instrument possesses sufficient validity to capture the underlying dimensions of consumer behaviour in this study.

Table 2: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.283	25.660	25.660	1.283	25.660	25.660	1.208	24.158	24.158
2	1.137	22.749	48.410	1.137	22.749	48.410	1.132	22.648	46.806
3	1.005	20.101	68.510	1.005	20.101	68.510	1.085	21.704	68.510
4	.831	16.630	85.140						
5	.743	14.860	100.000						
Extraction Method: Principal Component Analysis.									

Source: SPSS Result, Version 26.0

Legend: BBC = Buying behaviour of consumers, CSI = Cultural and social influence, TIA = Technological and information access, ECF = Economic factors, MPP = Marketplace preference

The result of the factor analysis presented in Table 2 confirms the validity of the instrument through the Total Variance Explained. The extraction method used was Principal Component Analysis, and the eigenvalues greater than one show that three components were retained. Component 1 recorded an eigenvalue of 1.283, accounting for 25.660% of the total variance, Component 2 had an eigenvalue of 1.137, explaining 22.749% of the variance, while Component 3 yielded an eigenvalue of 1.005, accounting for 20.101% of the variance. Together, these three factors cumulatively explain 68.510% of the variance, which is above the 60% threshold often recommended in social science research, thereby establishing construct validity.

In addition, the Rotation Sums of Squared Loadings further support the adequacy of the measurement instrument. After rotation, Component 1 explained 24.158% of the variance, Component 2 explained 22.648%, and Component 3 explained 21.704%, bringing the cumulative percentage again to 68.510%. This distribution indicates that the variance is more evenly spread across the constructs after rotation, which enhances interpretability and confirms that no single construct dominates the explanation of the phenomenon under study. Such a balanced contribution strengthens the construct validity by showing that multiple factors collectively underpin the constructs measured in the instrument.

It is therefore important that all constructs; BBC, CSI, TIA, ECF, and MPP are included to fully capture the dimensions of consumer behaviour in this study. Excluding any of these constructs would reduce the explained variance and weaken the content validity of the instrument. For example, while BBC and CSI capture consumer decision-making and social influence, TIA reflects technological changes that shape access to information, and ECF relates to economic realities affecting purchasing power. MPP complements these by accounting for market-driven preferences. The cumulative explained variance of 68.510% demonstrates that the instrument achieves a strong balance of comprehensiveness and precision, validating its effectiveness in measuring the intended constructs.

RELIABILITY OF INSTRUMENT

Table 3: Reliability Statistics

Variables	Cronbach's Alpha
Buying behaviour of consumers (BBC)	0.850
Cultural and social influence (CSI)	0.764
Technological and information access (TIA)	0.896
Economic factors (ECF)	0.864
Marketplace preference (MPP)	0.880
Overall Cronbach	**0.851**

Source: SPSS Result, Version 26.0

Legend: BBC = Buying behaviour of consumers, CSI = Cultural and social influence, TIA = Technological and information access, ECF = Economic factors, MPP = Marketplace preference

The reliability statistics presented in Table 3 indicate that the instrument used in the study is highly reliable. Cronbach's Alpha values for the individual constructs were all above the commonly accepted threshold of 0.70, confirming strong internal consistency. Specifically, Buying Behaviour of Consumers (BBC) recorded an alpha of 0.850, Cultural and Social Influence (CSI) was 0.764, Technological and Information Access (TIA) was 0.896, Economic Factors (ECF) was 0.864, and Marketplace Preference (MPP) was 0.880. The overall Cronbach's Alpha for the instrument was 0.851, further validating that the set of items consistently measure the intended constructs. The implication of these findings is that the instrument is dependable for generating accurate and replicable results within the study. The relatively high alpha values across constructs suggest that respondents interpreted the items consistently, ensuring that each construct reliably captures its underlying dimension. For instance, the highest reliability recorded for TIA (0.896) underscores the critical role of technology and information in shaping consumer behaviour, while the lowest (0.764 for CSI) still reflects acceptable reliability. Collectively, the strong reliability of all constructs provides confidence in the robustness of the study's findings, thereby reinforcing the validity of subsequent statistical analyses and enhancing the credibility of policy or managerial recommendations drawn from the results.

Model Specifications

BBC = f (CSI, ECF, TIA, MPP)   (1)

Where,

BBC = Buying behaviour of consumers

CSI = Cultural and social influence

TIA = Technological and information access

ECF = Economic factors

MPP = Marketplace preference

In explicit form, the model can be restated as shown below

$$BBC = b_0 + b_1CSI + b_2ECF + b_3TIA + b_4MPP + U_t \qquad (2)$$

Where,

b_0 = Regression Constant

b_1, b_2, b_3, b_4 = Regression Coefficients

U_t = Error Terms

A priori expectation

$b_1 > 0, b_2 > 0, b_3 > 0, b_4 > 0$

DATA ANALYSIS TECHNIQUES

Binary logistic regression was employed to estimate the objectives of the study. Hypotheses were tested using the probability values of the regression coefficients. The decision rules for hypothesis testing were as follows: If the probability value of the coefficient $p(b_i)$ exceeds the critical value (5% significance level), the null hypothesis is accepted, indicating that the coefficient (b_i) is not statistically significant. Conversely, if $p(b_i)$ is less than the critical value, the null hypothesis is rejected, indicating that (b_i) is statistically significant. The Hosmer-Lemeshow test was conducted as a diagnostic check.

RESULTS AND DISCUSSIONS

This section is made up of three subsections namely; presentation of the regressions results, test of hypotheses and the discussion of the results based on the specific objectives of the study. One hundred and one (101) questionnaires were distributed all were filled and returned, representing 100% of the sample as a result of no instrument mortality.

PRESENTATION OF THE LOGIT REGRESSION RESULTS

This section presents the result of the logit regression,and discusses the implication of the result to the study.

Table 4: Classification Table for the Model

	Observed		Predicted		
			BBC		Percentage Correct
			.00	1.00	
Step 0	BBC	.00	0	28	.0
		1.00	0	73	100.0
	Overall Percentage				72.3
a. Constant is included in the model.					
b. The cut value is .500					

Source: SPSS Result, Version 26.0

Legend: BBC = Buying behaviour of consumers, CSI = Cultural and social influence, TIA = Technological and information access, ECF = Economic factors, MPP = Marketplace preference

The logistic regression classification table shows that all 72.3 cases (100%) were included in the analysis, with no missing or unselected cases. This indicates that the dataset was complete and fully utilized in the model, ensuring that the analysis was based on the total available data. The absence of missing cases (0.00%) strengthens the reliability of the results, as the model's predictions and outcomes are based on the entirety of the dataset, avoiding any potential bias that could arise from data exclusion.

Table 5: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	5.436ª	0.570	0.753
a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.			

Source: SPSS Result, Version 26.0

Legend: BBC = Buying behaviour of consumers, CSI = Cultural and social influence, TIA = Technological and information access, ECF = Economic factors, MPP = Marketplace preference

The model summary table provides key statistics for evaluating the fit of the logistic regression model. The -2 Log Likelihood value is 22.911, indicating the model's overall fit to the data. The Cox & Snell R Square value of 0.570 suggests that approximately 57.0% of the variability in the dependent variable is explained by the model. The Nagelkerke R Square value, which is an adjusted version of the Cox & Snell R Square, is 0.753, indicating a stronger explanatory power, with 75.3% of the variance explained. The estimation terminated at the fourth iteration, as parameter estimates changed by less than 0.001, showing that the model quickly reached stability.

Table 6: Hosmer and Lemeshow Test for Model

Step	Chi-square	df	Sig.
1	7.476	8	.255

Source: SPSS Result, Version 26.0

Legend: BBC = Buying behaviour of consumers, CSI = Cultural and social influence, TIA = Technological and information access, ECF = Economic factors, MPP = Marketplace preference

Table 6 presents the Hosmer and Lemeshow Test results for the model, showing a Chi-square value of 7.476with 8 degrees of freedom and a significance level of 0.255. This result suggests that the model fits the data well, as the p-value is greater than the common alpha level of 0.05, indicating no significant deviation from the expected model fit. Therefore, the results derived from this model can be considered reliable in assessing how the independent variables influences the dependent variable in the study area.

Table 7: Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	13.808	4	.043
	Block	13.808	4	.043
	Model	13.808	4	.043

Source: SPSS Result, Version 26.0

Legend: BBC = Buying behaviour of consumers, CSI = Cultural and social influence, TIA = Technological and information access, ECF = Economic factors, MPP = Marketplace preference

Table 7 displays the Omnibus Tests of Model Coefficients, revealing a Chi-square value of 13.808 with 4 degrees of freedom and a significance level of 0.043. This indicates that the model's coefficients collectively have a statistically significant effect on the outcome variable. Therefore, the model is effective in capturing the dynamics in the model

Table 8: Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1ª	CSI	-.087	.218	.158	1	.691	.917	.598	1.406
	ECF	.059	.234	.064	1	.801	1.061	.670	1.679
	TIA	1.652	.461	2.846	1	.000	5.216	2.114	2.871
	MPP	-1.733	.564	9.444	1	.002	.177	.059	.534
	Constant	1.283	1.350	.903	1	.342	3.607		
a. Variable(s) entered on step 1: CSI, ECF, TIA, MPP.									

Legend: BBC = Buying behaviour of consumers, CSI = Cultural and social influence, TIA = Technological and information access, ECF = Economic factors, MPP = Marketplace preference

The result of the logistic regression shows that cultural and social influence (CSI) has a negative but insignificant effect on consumers' buying behaviour of agri-food products in the FCT, with a coefficient of –0.087 and a p-value of 0.691. The odds ratio of 0.917 indicates that increases in cultural or social influence slightly reduce the likelihood of buying behaviour, though this effect is statistically weak. The implication of this finding is that consumer decisions in the FCT are less shaped by cultural or social norms, suggesting that modern consumption patterns are gradually replacing traditional influences in food choices.

Economic factors (ECF) also show a positive but insignificant relationship with consumer buying behaviour, with a coefficient of 0.059 and p-value of 0.801. The odds ratio of 1.061 suggests that improvements in income, price affordability, or other economic considerations increase the likelihood of buying behaviour, but the effect is negligible. This implies that consumers in the FCT may not rely solely on economic constraints in making food decisions, possibly because of diverse income levels or alternative food sources. Thus, while affordability matters, it may not be the decisive driver of food purchases in the study area.

Technological and information access (TIA) has a strong, positive, and highly significant influence on consumer buying behaviour, with a coefficient of 1.652 and p-value of 0.000. The odds ratio of 5.216 indicates that better access to technology and information increases the likelihood of positive buying behaviour more than fivefold. This finding implies that digital platforms, mobile phones, and internet access are critical in shaping consumer decisions in the FCT. Therefore, improving e-commerce systems, online marketing, and information dissemination on agri-food products will significantly enhance consumer patronage.

Marketplace preference (MPP) has a negative and significant effect on buying behaviour, with a coefficient of –1.733 and p-value of 0.002. The odds ratio of 0.177 shows that consumers who are less satisfied with available marketplace options are less likely to engage in positive buying behaviour. This suggests that issues such as poor infrastructure, unhygienic conditions, and limited product variety in traditional markets discourage consumer patronage. The implication for the study is that improvements in market structure, organization, and service delivery will be essential in enhancing consumer confidence and driving consistent buying behaviour for agri-food products in the FCT.

DISCUSSION OF RESULT

The finding that cultural and social influence has an insignificant effect on consumers' buying behaviour in the FCT contrasts with earlier studies such as Patricia et al. (2024), who emphasized cultural and psychological factors as strong determinants of consumer decision-making in Peru's food markets. Similarly, Chamhuri and Batt (2009) noted that cultural and demographic characteristics significantly shape patronage in both developed and developing markets. The divergence in results suggests that while cultural and social norms remain important in some contexts, especially in traditional or community-driven societies, their impact is waning in more urbanized and modernized areas like the FCT where exposure to diverse consumption patterns may dilute cultural influence.

Economic factors also showed an insignificant effect in this study, differing from findings by Tabassum and Jabir (2020), who reported that income and affordability significantly shaped willingness to pay for health and wellness products in India. Likewise, Faijul et al. (2023) found that income and expenditure levels played key roles in shaping preferences for vegetable attributes in Bangladesh. The contrast implies that while economic considerations dominate in price-sensitive contexts, consumers in the FCT may prioritize other factors such as convenience, quality, and technological access, possibly due to broader income diversity and market alternatives available in an urban setting.

The result that technological and information access strongly influences consumer buying behaviour aligns with studies by Daya and Swati (2022) and Anis et al. (2017), who observed that the rise of online platforms and information accessibility significantly shaped grocery shopping decisions in India and Malaysia. Similarly, Xujin et al. (2022) found that improved access to digital channels influenced consumer preferences for fresh food during the COVID-19 pandemic in China. The consistency across contexts highlights the growing role of digital platforms, mobile technology, and online information in reshaping consumer decision-making, with implications that technological integration into agri-food marketing will be crucial for future growth.

The negative effect of marketplace preference observed in this study supports earlier findings by Shafiwu et al. (2018), who reported that structural and qualitative differences in marketplace conditions shaped consumer choices in Burkina Faso. Juliano et al. (2021) also emphasized that market attributes such as price, atmosphere, and convenience determined where consumers bought fresh fruits in the U.S. The similarity across studies suggests that market conditions remain a universal determinant of consumer behaviour, and poor infrastructure or limited product quality can discourage consumer engagement regardless of geography. For the FCT, this underlines the urgent need to modernize traditional markets and enhance consumer experience to ensure sustained patronage.

CONCLUSION AND RECOMMENDATIONS
CONCLUSION

The study concludes that consumer buying behaviour of agri-food products in the FCT is less shaped by cultural and economic considerations, as both factors showed weak and insignificant effects. This highlights a shift from traditional consumption influences to more modern determinants of decision-making. While affordability and cultural norms remain relevant in other contexts, their diminished role in the FCT suggests that consumers increasingly base their choices on convenience, quality, and access to alternatives rather than conventional socio-economic pressures. In contrast, technological access and marketplace conditions emerged as critical drivers of consumer behaviour. The strong influence of technology underscores the centrality of digital platforms, mobile connectivity, and online marketing in shaping purchasing decisions. Similarly, the negative effect of poor marketplace conditions highlights the urgent need to modernize traditional markets and improve service delivery. Together, these findings imply that policymakers and agribusiness stakeholders should prioritize digital innovation and market infrastructure upgrades to enhance consumer satisfaction and strengthen food systems in the FCT.

RECOMMENDATIONS

Based on the findings of the study the following recommendations are made:

i. Since cultural and social influence was found to have no significant effect on buying behaviour, policymakers and agribusiness operators should shift focus from traditional cultural drivers and instead embrace modern strategies such as branding, packaging, and awareness campaigns that appeal to diverse consumer groups across the FCT.

ii. As economic factors also showed insignificant influence, interventions should not rely solely on price or income-based incentives. Rather, policies should emphasize quality assurance, product differentiation, and value-added services that encourage consumer loyalty, regardless of income variations.

iii. Given that technological and information access strongly influences consumer buying behaviour, stakeholders should invest in strengthening digital infrastructure, promoting e-commerce platforms, and expanding mobile-based marketing channels to increase consumer awareness and enhance access to agri-food products in the FCT.

iv. Because marketplace preference significantly affects consumer behaviour, there is an urgent need to modernize market facilities by improving infrastructure, sanitation, security, and product variety. Government and private sector collaboration should prioritize upgrading traditional markets and creating more consumer-friendly shopping environments to sustain patronage.

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